Mn/DOT Measures: Guiding Decisions from Planning to Program Delivery

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Abstract

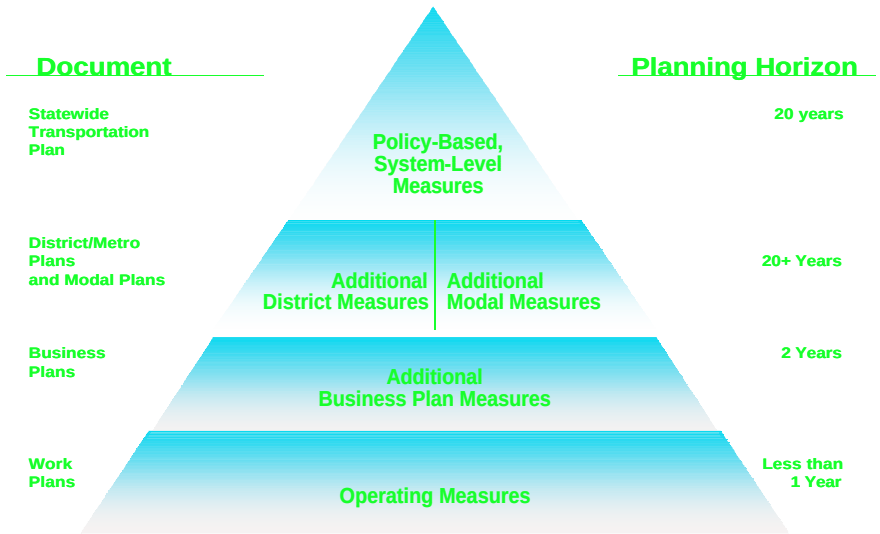
After 10 years developing performance measures, the Minnesota Department of Transportation (Mn/DOT) has achieved a more mature multi-level performance framework. The poster illustrates the alignment of levels from planning to operations using Mn/DOT's strategic initiative to improve interregional corridors.

A pyramid is useful in describing Mn/DOT's measurement system. At the top is a new multi-modal, performance-based 20-year Statewide Transportation Plan. It establishes 10 policies and 41 measures and indicators. These measures will guide creation of district plans and modal plans (Aeronautics, Transit, Rail, etc). The Statewide Plan sets 6-, 10-, and 20-year performance targets. The gaps between current performance and the targets inform decisions on where to apply more resources or new strategies.

Mn/DOT's 2004-05 Business Plan incorporates performance measures from the Statewide Transportation Plan. The Business Plan sets achievable 2-year targets for reducing the gap on selected measures. Some targets may be supported by investment proposals to the Legislature, others by internal reallocations.

Real-time operational measures, such as for project management and snow and ice removal, steer progress toward achieving performance targets. They use red-yellow-green dashboards for weekly, monthly or quarterly monitoring. When gaps are identified, managers and line staff collaborate to identify corrective actions.

Performance Measures Pyramid



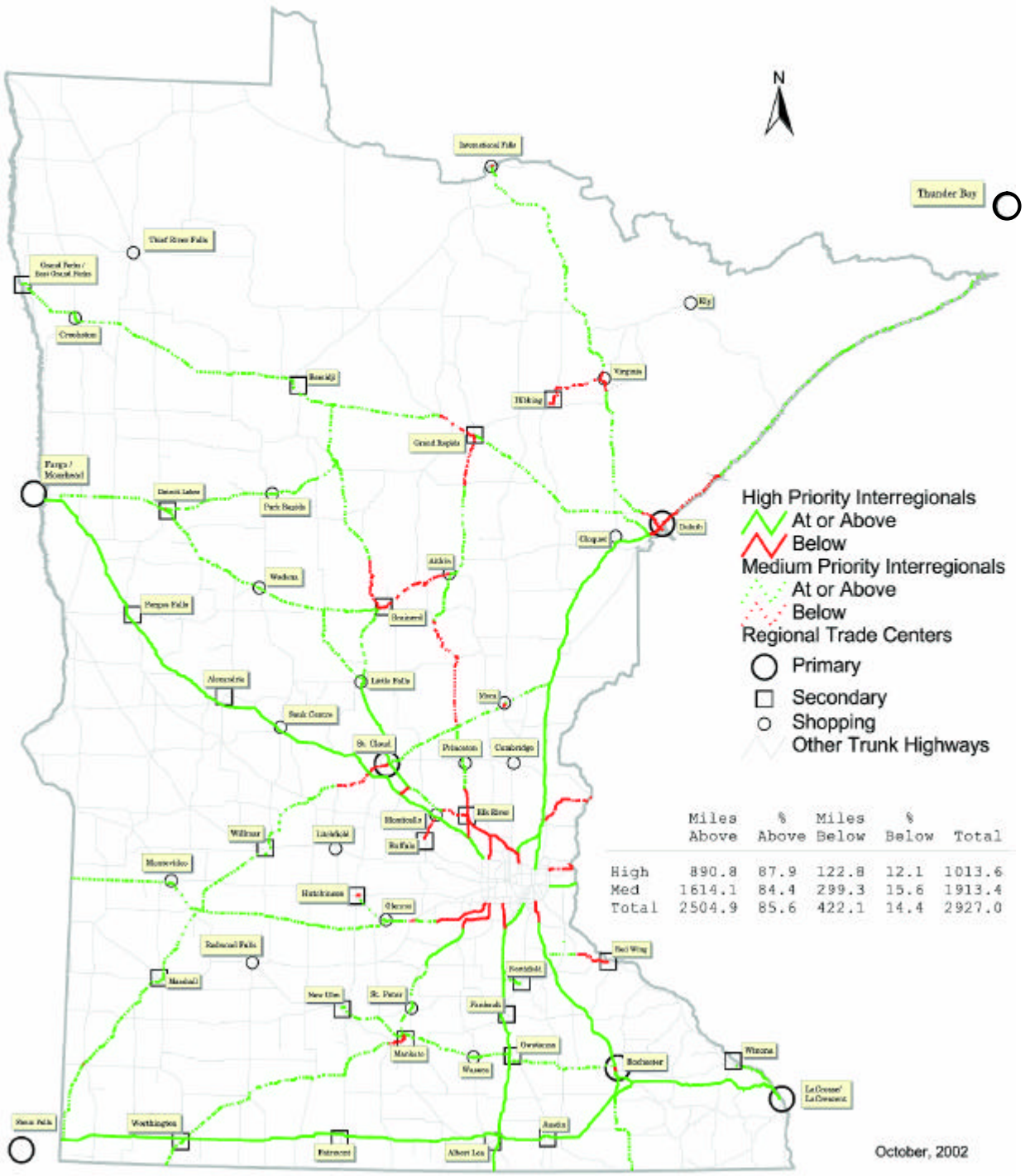
Case Study: Interregional Corridors

Mn/DOT's work to align budget and operational decisions to long-term strategic measures is illustrated in the panels to the right. They trace implementation of a Statewide Transportation Plan policy developed beginning in 1999, "Enhance mobility in Interregional Transportation Corridors (IRCs) linking Regional Trade Centers (RTCs)." Minnesota's IRCs make up a 2,927- mile highway system connecting 50 RTCs.

The driving measure behind the IRC initiative is Average Travel Speed between RTCs. The measure was developed based on public input. Citizens reported that they wanted "reasonable and reliable " travel time on interregional routes. Targets were set at 60 mph for 1,013 miles of High Priority Corridors and 55 mph for 1,913 miles of Medium Priority Corridors. Current travel speeds were calculated based on traffic volume, posted speeds and the number of stops. Floating car runs helped fine tune the calculations. The entire system was measured to identify deficient segments and segments threatened with degradation.

Progress to improve IRC travel speeds was jump-started by a $227 million funding package from the Minnesota Legislature. It was part of a larger $459 million Moving Minnesota "ABC" initiative that also included funding for urban Bottleneck Removal and Advantages for Transit. As a result of the initiative, 40 IRC, Bottleneck and Transit projects have been advanced a total of 114 years. A legislative deadline to obligate all funds by June 2003 led to creation of project management dashboards to monitor on-schedule status.

Interregional Corridor System - Segments Performing Below Target Speeds



	Miles Above	% Above	Miles Below	% Below	Total
High	890.8	87.9	122.8	12.1	1013.6
Med	1614.1	84.4	299.3	15.6	1913.4
Total	2504.9	85.6	422.1	14.4	2927.0

October, 2002

INTERREGIONAL CORRIDORS CASE STUDY

I. 20-Year Statewide Transportation Plan

Measure

- Average travel speed

Outcome Targets

- 60 mph - High Priority Interregional Corridors (IRCs)
- 55 mph - Medium Priority IRCs
- 90% of IRC miles will achieve target speeds by 2023

Processes

- Identified sub-performing IRC segments using estimation factors
- Projected corridor performance 20 years into the future based on VMT growth
- Identified IRC segments threatened with future degradation below speed targets
- Corridor studies identified $2 billion in needs to reach speed performance targets

Decisions

- Initiated 7 community-based corridor studies to protect and improve IRC routes covering 600 miles
- Initiated 20 community-based land use and transportation partnership studies
- Promulgated Access Management Guidelines
- Set performance measures to monitor access management conformance and IRC right-of-way protection
- Updating District Long-Range Plans to address IRCs

INTERREGIONAL CORRIDORS CASE STUDY

II. 2-Year Business Plan and Budget

Measures

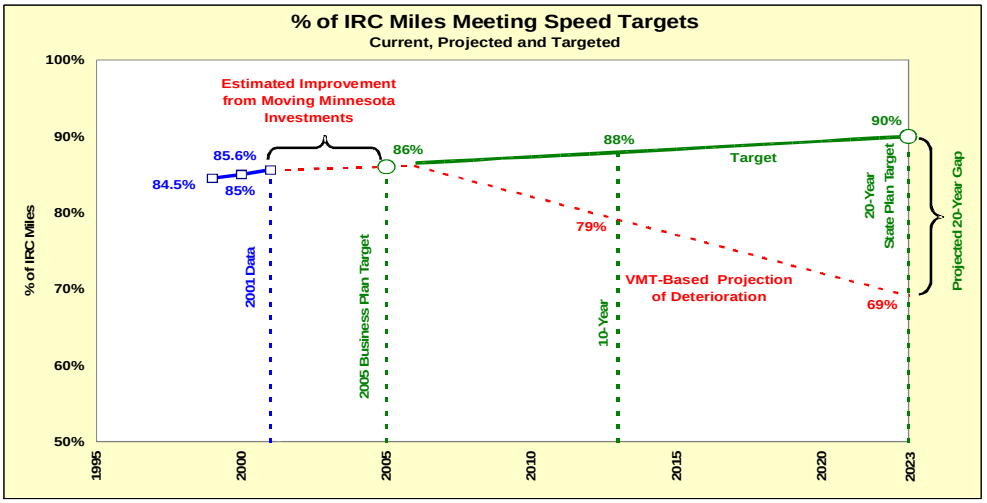
- Percent of IRC miles meeting target speeds
- Number of Corridor Management Plans adopted

Outcome Targets

- 85% of miles (97 additional miles) will meet target speeds by 2002-03
- 86% of miles will meet target speeds by the end of the 2004-05 budget cycle

Output Targets

- 6 Corridor Management Plans will be adopted by February 28, 2003
- 100% of right-of-way to be protected for future projects will be secured by May 1, 2003



Decisions

- Proposed "Moving Minnesota" funding program to 2000 Legislature resulting in $227 million appropriation and bonding for IRC upgrades and corridor planning
- Selected and accelerated projects to upgrade underperforming segments
- Redirected existing funds to match legislative funding
- Purchased right-of-way on at-risk segments
- Adjusted signal timing to improve travel speeds
- Restricted signal proliferation on IRCs

INTERREGIONAL CORRIDORS CASE STUDY

III. Operations - Monitoring Project Management

Measures

- Individual projects on time status to make letting date
- Individual projects right-of-way acquisition on-time status
- Percent of IRC projects on schedule
- Number of parcels acquired compared to number required

Output Target

- 100% of state-funded IRC projects will be let by February 28, 2003

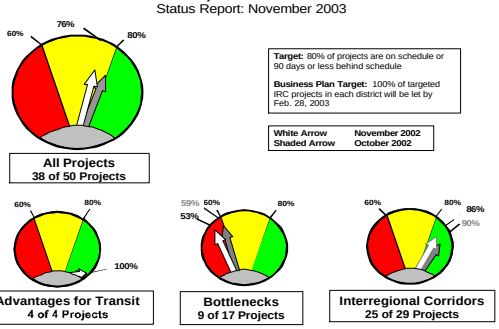
Processes

- Monthly and weekly statewide video conferences monitor project status

Moving Minnesota Projects

Projects on Schedule

Status Report: November 2003



Monthly Project Update

Trunk Hwy	State Proj	Letting Date	Project Description	On Schedule Status Dashboard	6/7/02 Status Report
10	0301-47	8/3/2003	RR X-ING W OF DETROIT LAKES TO CSAH 54 IN DETROIT LAKES (ACCESS MANAGEMENT)		This project will be a R/W purchase project. The letting will be moved to Aug. of 2003. We are working on the R/W Autho Map. Comments on the draft EA will be coming back the week of June 10th. We will have another meeting with the BNSF R/R to go over the project.
336	1414-02	12/14/2001	JCT I-94 TO JCT TH 10 AND INTERCHANGE OF 336 AND TH 10		Project let on 12/14/01. Construction started in early May and is on schedule.
14 / 52	5502-IRC	R/W ONLY 6/1/03	ACQUIRE R/W FROM TH 63 TO 55TH ST NW IN ROCHESTER		20% of parcels have been acquired. On schedule to have right of entry to all parcels by June 2003.

Decisions

- Shifted existing state and district program delivery resources to IRC projects to fill gaps
- Increased consultant contracts to handle high volume
- Deferred non-priority non-IRC projects
- Implemented more than 50 ongoing program delivery streamlining initiatives

Conclusions

Set Performance Targets for Priorities that Matter. Setting specific performance targets at both the system and the operations level for high-profile, urgent, priority initiatives can rapidly advance the practice of performance management.

Manage for Results Face-to-Face. Regular face-to-face progress review sessions encompassing all responsible players are key to achieving performance targets. Minnesota uses statewide video conferences to monitor project development status dashboards. The meetings heighten individual accountability and serve as joint problem-solving sessions to ensure department success.

Enable Informed Tradeoff Decisions. Creation of measures for all major transportation services will provide the data needed for trade-off decisions: Given limited funds, which investments will bring the greatest performance benefits for customers?